The Distinction of Taheri Consciousness Fields from Conventional Physical Fields: Evaluating the Magnetic Properties of Materials

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ABSTRACT

The magnetization hysteresis loop provides crucial information about the magnetic properties of materials. In this study, by examining the magnetic properties of three paramagnetic and diamagnetic materials in the vicinity of Taheri Consciousness Fields (TCFs), three types 1,2, and 3, we have investigated the effects of TCFs in comparison with the magnetic fields. After being exposed to the three different TCFs, the magnetic properties of the materials have changed significantly. Furthermore, the TCF_1 of the present study (originally named T-Consciousness Bond Field)has changed the magnetic properties of materials toward their physically inherent state in the standard laboratory conditions. Objectively observing the conditions and the results, it can be concluded that TCFs are inherently neither electric nor magnetite fields and have entirely distinct effects on materials and their properties.

Keywords: Taheri Consciousness Fields, hysteresis loop, magnetic properties, physical field

INTRODUCTION

The magnetic properties of materials depend on their composition and microstructure. Those properties that depend mainly on the composition are intrinsic (Roth, 2001). Vibrating-sample magnetometer (VSM) is a versatile technique that was described in the 1950s for the characterization of magnetic properties of materials (Foner, 1959). Based on the behavior of materials in an external magnetic field, they are usually classified into three major types: (1) diamagnetic materials such as gold are repelled when placed in a magnetic field, (2) paramagnetic materials such as platinum can be magnetized but magnetization disappears by removing the external field, and (3) ferromagnetic materials such as iron and nickel exhibit the strongest magnetic behavior and remain magnetized even after removing the external magnetic field. New magnetic phases can be induced by applying external pressure (Kamarad, 2014), temperature (Chaddah and Roy, 2001), and external magnetic field (Kuwahara et al., 1995). Technical information about the magnetic properties of materials can be obtained by studying the hysteresis loop, which expresses the relationship between the magnetic field strength (H) and magnetization of the material (M).

The magnetic properties of pure metals and nanoparticles have long been studied in various environmental conditions. The saturation magnetization and its related magnetism alterations of very pure iron and nickel (Crangle and Goodman, 1971), nonmagnetic oxides (Sundaresan et al 2006) and Porous Anodic Aluminum (PAA) (Sun et al., 2013) at room temperature, and aluminum and copper at low temperature (Reekie and Hutchison., 1948) have been studied. The limited observed changes are attributed to the motion of free electrons in the metal lattice and the change in the physical structure of the nanoparticle lattice as a result of the application of an external magnetic field.

Humans have always been curious to know the world around them. There have been many attempts to explore and explain diverse physical laws. For example, Newton's law of gravity and Maxwell's electromagnetism equations. Grand unification theory (GUT) is another attemp t that suggests the unification of the fundamental forces of nature, and Quantum physics has shown that some physical laws extend beyond the material world (Aquino, 1999). There have been many attempts to explore and explain diverse physical laws—for example, gravity, electromagnetic, electric field etc. The field concept is used frequently in physical theories.

The nature of consciousness and its place in science has received much attention in the current century. Many philosophical and scientific theories have been proposed in this area. In the1980s, Mohammad Ali Taheri introduced novel fields with a non-material/non-energetic nature named Taheri Consciousness Fields (TCFs). In this perspective, T-Consciousness is one of the three existing elements of the uni-verse apart from matter and energy. According to this theory, there are various TCFs with different functions, which are the subcategories of a networked universal internet called the Cosmic Consciousness Network (CCN). The major difference between the theory of TCFs and other theoretical concepts about consciousness is related to the practical application of the TCFs. TCFs can be applied to all living and non-living creatures, including plants, animals, microorganisms, materials, etc.

Mohammad Ali Taheri, the founder of Erfan Keyhani Halqeh, a school of thought, introducd a new science in 2020 as a branch of this school. He coined the term Sciencefact for this new science because it utilizes scientific investigati ons to prove the existence of T-Consciousness as an irrefutable phenomenon and a fact.

Although science focuses solely on the study of matter and energy and Sciencefact, by contrast, explores the effects of the [non-material/non-energetic] TCFs, Sciencefact has provided a common ground between the two by conducting reproducible laboratory experiments in various scientific fields, and it has used the scientific approach in proving TCFs.

The influence of the TCFs begins with the Connection between CCN as the Whole Taheri Consciousness of the universe and the subjects of study as a part. This Connection called "Ettesal" is established by a Faradarmangar's mind (a certified and trained individual who has been entrusted with the TCFs). The human mind has an intermediary role (Announcer) which plays a part by fleeting attention to the subject of study and then the main achievement obtained as a result of the effects of the TCFs. These fields cannot be directly measured by science, but it is possible to investigate their effects on various subjects through reproducible laboratory experiments (Taheri, 2013).

The research methodology in the study of T-Consciousness has been founded on the process of Assumption, Argument, and Proof, in which the basic Assumption is: The Cosmos was formed by a third element called T-Consciousness that is different from matter and energy.

The Argument: The existence of TCFs can be demonstrated by its effects on matter and energy (e.g., humans, animals, plants, microorganisms, cells, materials, etc.)

The Proof: is the scientific verification of the effects of TCFs on matter and energy (according to the Argument) through various reproducible scientific experiments.

Accordingly, to investigate and verify the existence, effects, and mechanisms of TCFs, the following five research phases (Phases 0 through 4), and the aims of each phase are outlined below.

Phase-0 studies aim to prove the existence of TCFs by observing their effects. The nature of T-Consciousness and what it is will not be addressed in this phase. Phase-1 explores the varied effects of different TCFs. Phase-2 examines the reason behind the varied effects of these fields. Phase-3 investigates the mechanism of TCFs effects on matter and energy. Finally, Phase-4 draws significant conclusions, particularly with regard to the mind and memory of matter and their relation to the T-Consciousness, etc.

This study is the beginning of examining the third component of the universe apart from the world of matter and energy, namely, T-Consciousness, and exploring its effect on the world of matter and energy in an experimental typical physics study on a laboratory scale with the ability to replicate and reproduce its results. Accordingly, the present study has been designed with three purposes: First, to investigate the existence of the TCFs in practice and in a purely physical study. Second, to study the difference between the theoretical nature of TCFs and other physical fields in the experimental assay. And third, to investigate the type of effect of the Consciousness Bond Field on the level of the target material in comparison with other TCFs.

Materials

The saturation magnetization of materials is one of the intrinsic properties of materials. In this study, the changes to the saturation magnetization of materials are measured in the presence of three different TCFs, once in the absence and once in the presence of metal shields with different thicknesses. Three categories of magnetic materials in powder form are examined: Nickel (Ni) as ferromagnetic, Alumina (Al_2O_3) as quasi-ferromagnetic, and

Copper (Cu) as diamagnetic. The use of metal shields with different thicknesses is to obtain potential evidence of the distinction between TCFs and conventional physical fields. Throughout the experiments, the control samples were placed in the lower compartment with no steel shields. The test samples were placed in the upper compartment, once with no shield and once inside cylindrical stainless-steel shields. The test setup and shields specifications are presented in the following figure and table.

(a)

(b)

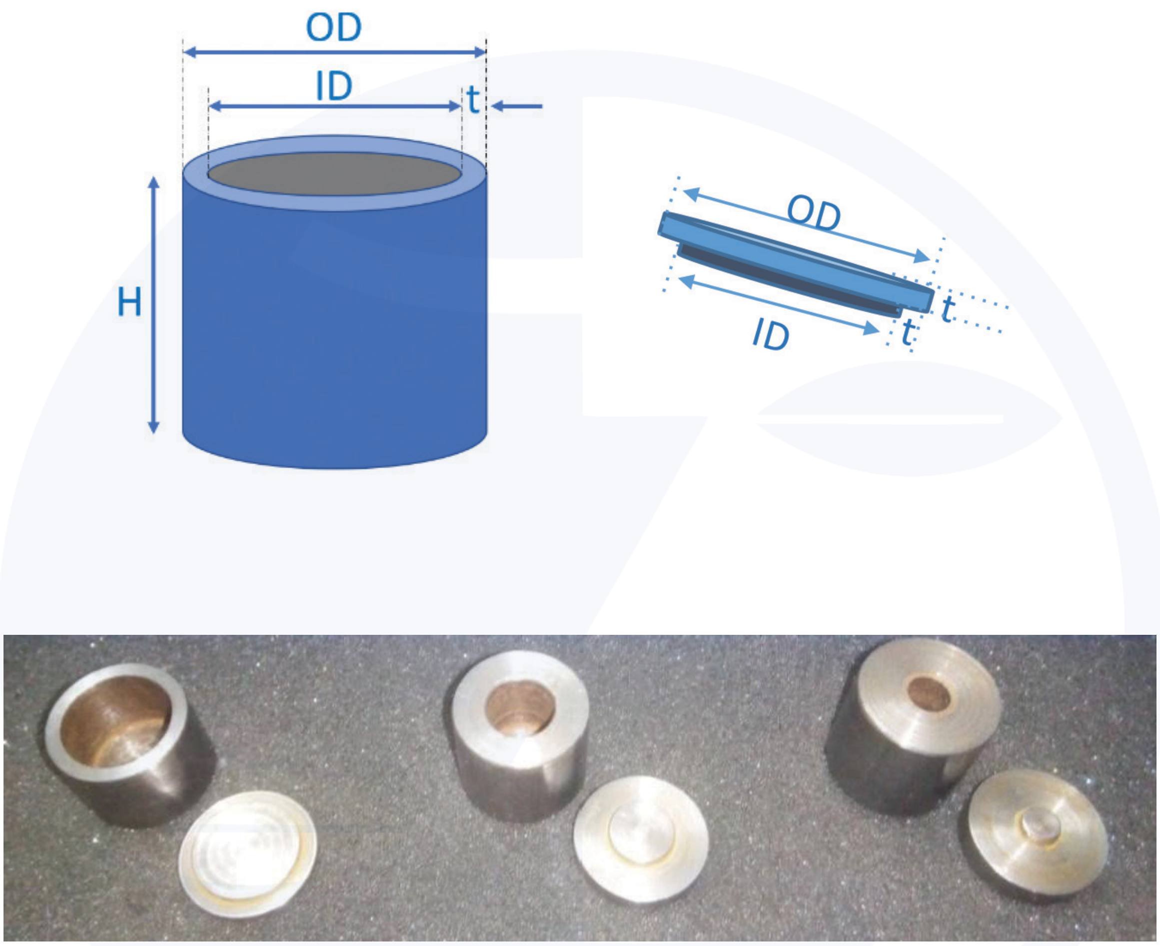

Figure 1. Schematic cylindrical metal shield dimensions (a) and three metal shields of the present study (b)

Table 1 . Dimensions of the cylindrical stainless-steel shields

Shield Number	Material	H (mm)	OD (mm)	ID (mm)	t (mm)
0	No shield used	-	-	-	-
1	Stainless-steel	20.6	21.0	6.0	7.5
2	Stainless-steel	19.0	21.0	10.0	5.5
3	Stainless-steel	16.3	21.0	16.0	2.5

Method

Hysteresis Measurements

The magnetic properties of the samples were measured using a Vibrating Sample Magnetometer (VSM), which operates based on Faraday's induction law. First, the sample is placed in a constant magnetic field. The applied magnetic field strength (H) magnetizes the specimen by aligning the magnetic domains or magnetic spins of the atoms or molecules in the direction of the magnetic field.The larger the magnetic field, the sample gets more magnetized. The magnetic moment generated in the sample induces a magnetic field around the sample. At this point, when the sample vibrates up and down, the induced magnetic field changes with time based on equation 1:

$$(1)\quad \emptyset = AH + B(4\pi - D)M_S \sin \omega t$$

A and B are the geometric factors associated with the set of coils, and D and MS are the demagnetization and induction magnetization coefficients, respectively. ω is the vibration frequency of the sample.

Changes in the induced magnetic field can be observed with the induced current in a coil set. This induced current (emf) is proportional to the induced magnetization of the sample based on equation 2:

$$(2)\quad emf = \frac{d\emptyset}{dt} = C(4\pi - D)M_S\omega \cos \omega t$$

C is a constant.

By using the VSM instrument, stronger magnetization generates a larger induction current. The induced current is amplified and transmitted to a data acquisition system connected to a computer to record the data using related software which the results were controlled and recorded. The VSM used in this study (Figure 2) is MDKB (Iran), with the accuracy of applying the external magnetic field strength (HC) to the tenth of Orested (Oe) and the accuracy of measuring the magnetism (M) to the tenth of a thousand emu/g. The hysteresis curves, which are the magnetization of the samples (M) versus the applied magnetic field strength (Hc), were plotted in figures 3-5.

Figure 2 . MDKB VSM Setup

Application of Taheri Consciousness Fields

TCFs were applied to the samples according to the protocols regulated by the COSMOintel research center (www.COSMOintel.com). A request for Connection to the CCN to utilize TCFs can be placed through the COSMOintel website in the "Assign Announcement" section. This access is available for everyone at no cost. In order to study and experience this Connection, the researchers can register on the website at any time and in order to report the experiment to the COSMOintel research center. Certain details of the experiment must be provided to the center; for example, the characteristics or number and name of samples and controls must be specified. This entire experiment was carried out as a double-blind method where lab technicians were completely unaware of TCFs theory, and the Faradarmangar at the COSMOintel research center who established the Connection was unaware of the details of the study. Double-blind is a gold standard that is common in science experiments in the field of medicine and psychology, involving theoretical and practical testing.

Results

In the present study, three materials with different magnetite characteristics are used. The corresponding influence of three distinct TCFs, TCF_1, TCF_2, and TCF_3, have been investigated. All the sample materials are standard laboratory grades. The magnetic properties, such as magnetization of the samples, are presented in Table 2. In addition, hysteresis plots of the samples are shown in Figures 3, 4, and 5.

Table 2 . Specification and magnetization of the samples with different TCFs treatment in this study

Used TCF	Material	Characteristic	Weight/mg	Treatment time/days	Interval[1] / days	Name according to CF/shield No.[2]	M (emu/g)	ΔM	% Change
TCF_1	Ni	Ferromagnetic	5	7	3	Ni00	54.113	0.000	0
						Ni11	57.291	3.1780	6
						Ni12	56.804	2.6910	5
						Ni13	57.783	3.6530	7
TCF_1	Al_2O_3	Quasi-ferromagnetic	3	14	7	Alumina00	0.020	0.00	0
						Alumina11	0.0150	-0.005	-25
						Alumina12	0.00760	-0.0124	-62
						Alumina13	0.00550	-0.0145	-73
						Alumina10	0.013	-0.0070	-35
TCF_2	Al_2O_3	Quasi-ferromagnetic	3	4	11	Alumina00	0.00283	0.000	0
						Alumina20	0.00920	0.00637	225
						Alumina21	0.01289	0.01000	355
						Alumina22	0.00188	-0.00095	-34
						Alumina23	0.04029	0.03746	1323
$TCF_1/TCF_2/TCF_3$	Al_2O_3	Quasi-ferromagnetic	3	4	11	Alumina00	0.00283	0.000	0
						Alumina10	0.00237	-0.00046	-16
						Alumina20	0.00920	0.00637	225
						Alumina30	0.00832	0.00549	194
$TCF_1/TCF_2/TCF_3$	Cu	Diamagnetic	3	4	11	Cu00	0.00540	0.000	0
						Cu10	0.00418	-0.00122	-23
						Cu20	0.00467	-0.00073	-13.5
						Cu30	0.01692	0.01152	213

1. The Time between the end of the treatment and the beginning of the VSM test.
2. The first and second numbers stand for T-Consciousness Fields numbers and shield numbers, respectively. For example, Alumina21 mean Alumina sample with the T-Consciousness $Field_2$, and shield number 1. Cu00 means the copper sample with no T-Consciousness Field applied and no shield, which is the control sample for copper.

As shown in Figure 3, by applying the TCF_1 to the nickel samples, the magnetization value of these samples increased.

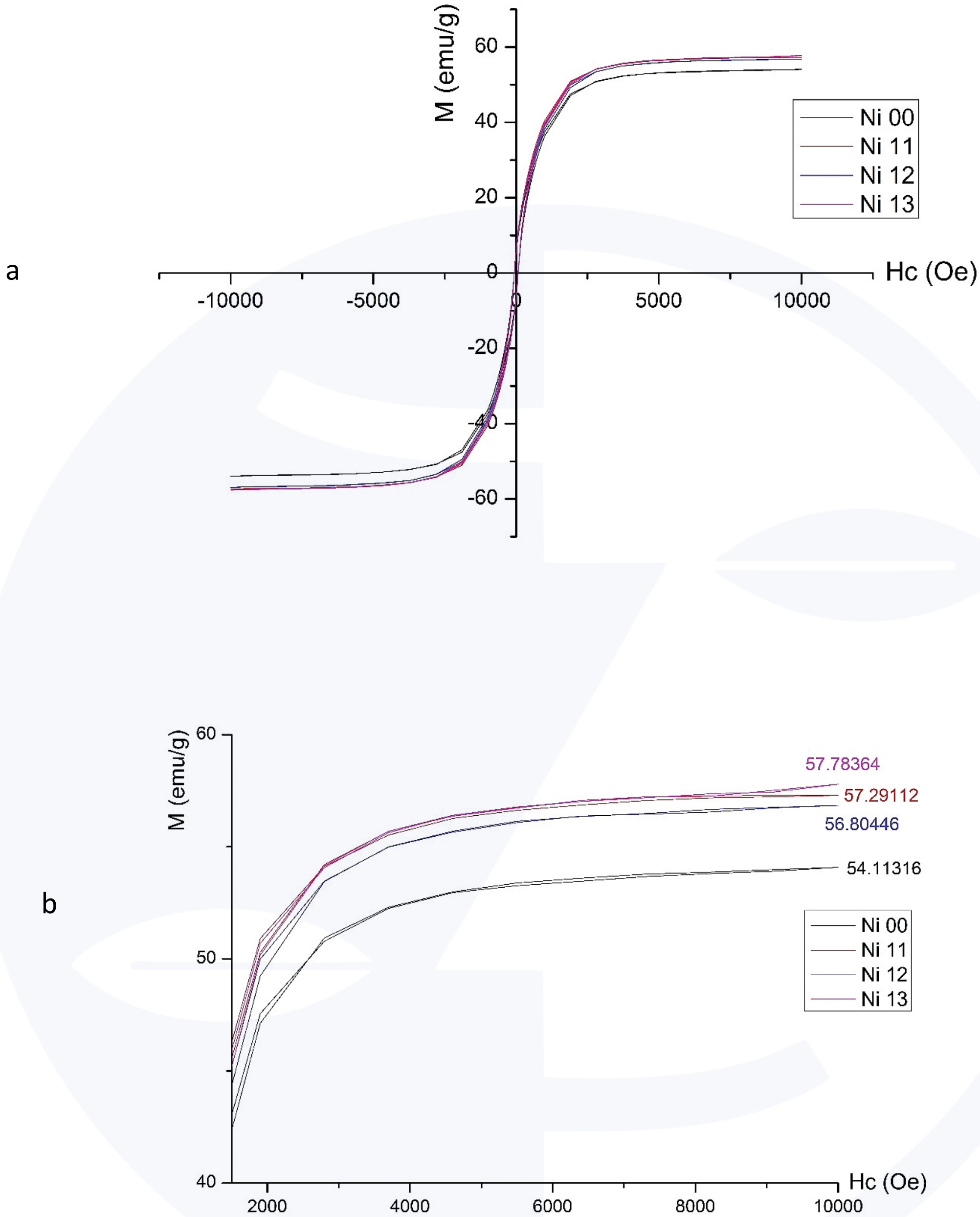

Figure 3 . The hysteresis plot of the Ni samples (a) and the closer view at the upper part (b).

The presence of a metal shield changes the effect of the TCF_1 on the treated samples. Except for the Ni12 sample, as the thickness of the shield increases, the magnetization value of the samples decreases. Moreover, the influence of TCF_1, besides two other TCFs, on Alumina samples is shown in the figure 4.

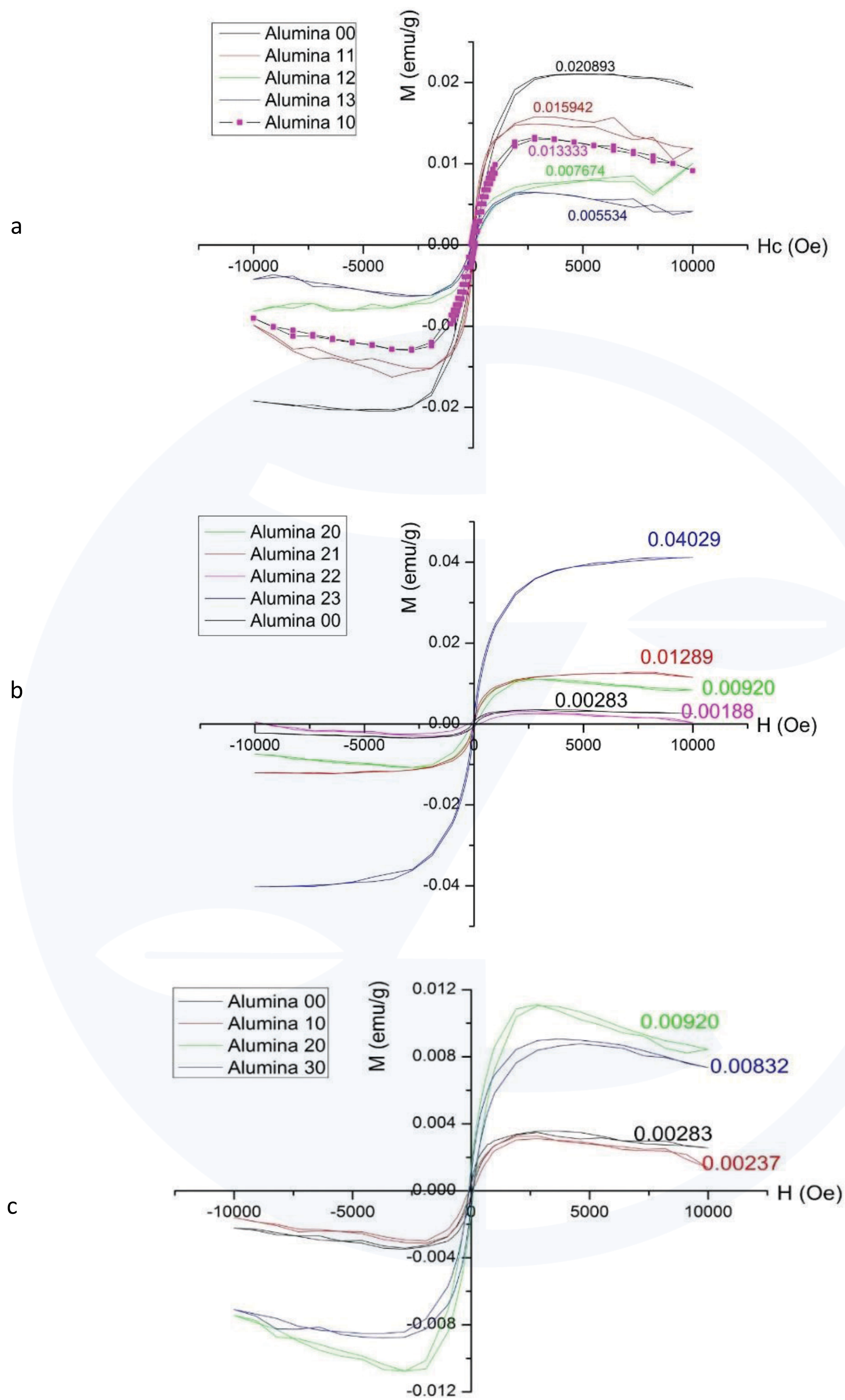

Figure 4 . The hysteresis plot of the alumina samples in different shields under the inf uence of (a) TCF_1, (b) TCF_2, and (c) TCF_1, TCF_2, and TCF_3 in comparison with the control.

As can be seen in figure 4a, by applying the TCF_1 to alumina quasi-ferromagnetic samples, the magnetization value of these samples decreases. Similar to the Ni samples test results, the presence of a metal shield changes the effect of TCF_1 on the alumina samples: as the thickness of the shield increases, the magnetization value of the samples decreases. On the other hand, by comparing the control (Alumina00) and the sample affected by the TCF_1 without a shield (Alumina10) with Alumina12 and Alumina13 samples, one concludes that the shield thickness has an effect on the response to the TCF_1 and the change in overall magnetization.

Figure 4b shows the change in magnetization of the alumina samples placed in different shields exposed to the TCF_2. Contrary to the previous behavior of the alumina samples under the influence of the TCF_1, the alumina samples under the influence of TCF_2 show completely opposite behavior, i.e., the magnetization increases significantly with increasing the shield thickness, except for the sample inside shield 2. Similar to the samples' responses to the TCF_1, TCF_2 was more effective on the change in magnetization for the alumina samples in shields 1 and 3.

And finally, Figure 4c represents the change in magnetization of the alumina samples placed in different shields under the influence of the TCF_3. Unlike the TCF_1 and remarkably more than TCF_2, the TCF_3 increases the magnetization of the alumina samples.

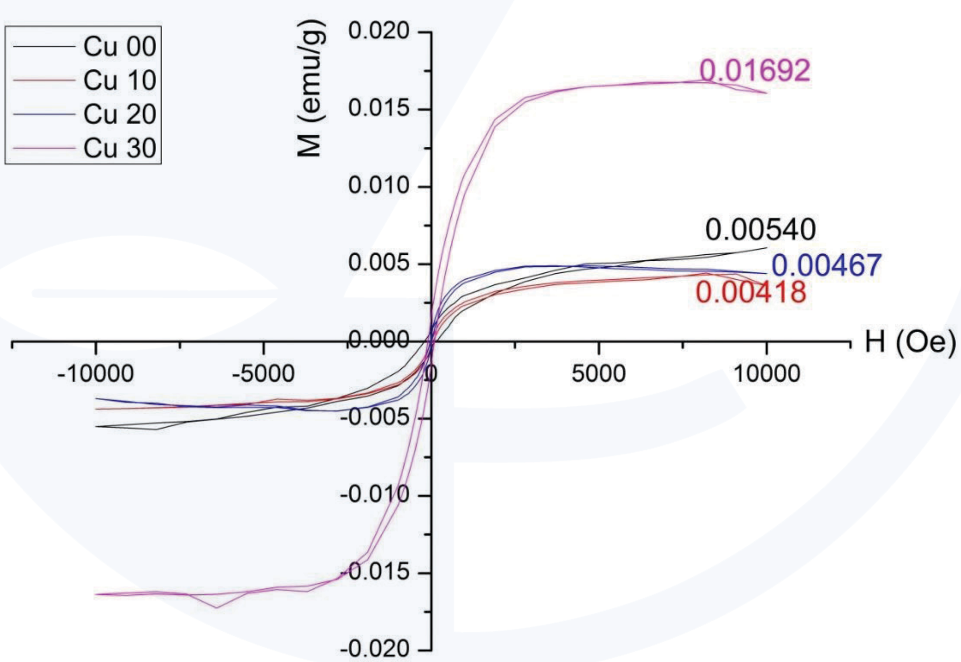

Figure 5 . The hysteresis plot of the Cu samples

As shown in Figure 5, the effects of the TCF_1 and TCF_2 on the copper samples are similar and are accompanied by a decrease in the samples' magnetization. Likewise, the effects of the TCF_3 on the copper and alumina samples are similar in increasing the magnetization remarkably, in contrast to the effects of the TCF_1 and TCF_2.

Discussion

The magnetization value of the nickel control sample (Ni00) at 30°C temperature is about 54.1 emu/g, which is very close to the reported value of 54.7 emu/g in the literature at this temperature. Crangle and Goodman (1971) reported that the magnetization of the nickel samples at 293 Kelvin (19.9°C) is about 55.1 emu/g, and it increases with decreasing the temperature and reaches about 58.6 emu/g at 4 Kelvin. The magnetization value of the nickel sample in shield 3 (Ni13), with the lowest thickness, reached 57.8 emu/g under the influence of the TCF_1, which is equivalent to the observed magnetization for the nickel at a temperature of about 140 Kelvin (-133.1°C), based on Crangle and Goodman (1971).

In powder form, alumina exhibits ferromagnetic behavior at room temperature due to the presence of oxygen vacancies and the exchange interactions between the electron spins (Sundaresan et al., 2006, Sun et al., 2013). Sintering these nanoparticles at 1400°C and 1 bar pressure for one hour causes the alumina mass to have a diamagnetic behavior (Sundaresan et al., 2006). By applying the TCF_1 to alumina samples, the amount of magnetization of this quasi-ferromagnetic material was reduced. Similar to the test results with the nickel samples, the presence of a metal shield changes the magnetic behavior of the material under the influence of TCF_1, i.e., as the thickness of the shield increases, the change of magnetization of samples decreases. On the other hand, the sample under the influence of TCF_1 without shield (Alumina10) has a magnetization value between those of Alumina11 and Alumina12. This demonstrates that the presence of the steel shield itself enhances the effect of the TCF_1 in alumina samples to some extent. Moreover, the magnetization value obtained for the Alumina13 sample at ambient temperature is 5.534×10^{-3} emu/g, which is comparable to the magnetization value of 3.5×10^{-3} emu/g for the alumina nanoparticles sintered at 500°C (Sundaresan et al., 2006). This indicates that alumina under the influence of TCF_1 is close to its intrinsic minimum magnetization value.

The TCF_1 also reduces the saturation magnetism of the copper samples. TCF_1 improves the magnetic properties of copper as a diamagnetic material, i.e., toward its inherent state. Similar behavior was observed in the nickel and alumina samples under the influence of TCF_1 as well. Since the external magnetic field affects the saturated magnetism of materials and not the intrinsic magnetism (temperature-dependent), the applied changes are only for treatment with TCF_1, and the reproducibility of the experiment has been investigated several times.

Based on the results of this study on the effect of the TCF_2 on the samples, it is not possible to have definite conclusions. How-ever, it is objectively observed that the thick-ness of the shield has an effect on the rate of the change of the saturation magnetization of the alumina samples under the influence of TCF_2. On the other hand, the effects of TCF_3 on all three types of materials were clearly the opposite of the results observed in the presence of TCF_1.

Conclusion

The hysteresis behavior of materials under the influence of a magnetic field provides significant information about intrinsic material properties. According to the theory of TCFs founded and introduced by Taheri, the function of the T-Consciousness Bond Field (named TCF_1 in the present study) is to re-pair, modify and treat the system under the study in order to achieve the optimal condi-tions of that system. The research objective was to investigate the distinction of the TCFs from other physical fields. The effects of the three various types of TCFs on the three materials with different magnetic characteristics have been examined. The T-Consciousness Bond Field (TCF_1) is considered the fundamental TCF of this study. The TCF_2 and TCF_3 have been considered to better distinguish and summarize the effects of the TCF_1. Given the conditions applied and the results in the presence of the TCF_1 in accordance with the theory of the TCF function, as well as the findings of the influences of the TCF_2 and TCF3, the following conclusions can be made:

(1) The existence of the TCFs and their effects are experimentally demonstrated at a laboratory scale and under controlled conditions. (2) The magnetic properties of materials enhanced remarkably under the influence of the TCFs treatment. More specifically, the magnetic properties of materials move toward their inherent optimal states under the influence of the T-Consciousness Bond Field (TCF_1). (3) Since the saturation magnetization value of a material cannot be increased or decreased by applying an electric or magnetic field, the TCFs are neither electric nor magnetic fields, i.e., the TCFs are not electromagnetic fields by no mean. (4) Since the shields thicknesses have a clear reductive influence on the TCF_1 effects on the magnetic properties of the materials, it can be concluded that the T-Consciousness Bond Field is applied from the outside of the material system under the study, i.e., TCF_1 has an external origin other than the system under the study.

According to these findings, the authors propose further investigation of the effects of TCFs on the physical properties of materials and compare their effects to different types of energies.

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